Chat-REC: Towards Interactive and Explainable LLMs-Augmented Recommender System

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Abstract

Large language models (LLMs) have demonstrated their significant potential to be applied for addressing various application tasks. However, traditional recommender systems continue to face great challenges such as poor interactivity and explainability, which actually also hinder their broad deployment in real-world systems. To address these limitations, this paper proposes a novel paradigm called Chat-Rec (ChatGPT Augmented Recommender System) that innovatively augments LLMs for building conversational recommender systems by converting user profiles and historical interactions into prompts. Chat-Rec is demonstrated to be effective in learning user preferences and establishing connections between users and products through in-context learning, which also makes the recommendation process more interactive and explainable. What's more, within the Chat-Rec framework, user's preferences can transfer to different products for cross-domain recommendations, and prompt-based injection of information into LLMs can also handle the cold-start scenarios with new items. In our experiments, Chat-Rec effectively improve the results of top-k recommendations and performs better in zero-shot rating prediction task. Chat-Rec offers a novel approach to improving recommender systems and presents new practical scenarios for the implementation of AIGC (AI generated content) in recommender system studies.